

**ANALISIS VEGETASI TUMBUHAN PAKU BERDASARKAN
KETINGGIAN DI BUKIT SIMARSAYANG
PADANGSIDIMPUAN**

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ABSTRAK

Penelitian analisis vegetasi ini bertujuan untuk mengetahui keanekaragaman, dominansi, pola distribusi, sifat fisika-kimia media tumbuh tumbuhan paku di Bukit Simarsayang Padangsidempuan. Penelitian ini dilaksanakan dari bulan Desember 2013 sampai bulan Januari 2014. Penelitian ini menggunakan metode deskriptif dengan tehnik purposive sampling berdasarkan rona lingkungan. Petak contoh yang digunakan berukuran 5 x 5 m, masing-masing terdapat 10 di ketinggian I (385 – 443 m dpl) dan di ketinggian II (443 – 500 m dpl).

Hasil penelitian menunjukkan bahwa di Bukit Simarsayang ditemukan 42 jenis tumbuhan paku yang tergolong kedalam 13 famili dengan total 2228 individu. Ketinggian I memiliki indeks keanekaragaman 2,706 dan ketinggian II memiliki indeks keanekaragaman 2,470 artinya indeks keanekaragaman masing-masing ketinggian termasuk kategori sedang. Ketinggian I didominasi oleh jenis *Christella dentata* sebanyak 175 individu dan ketinggian II didominasi oleh jenis *Dicranopteris linearis* sebanyak 271 individu. Terdapat 40 jenis tumbuhan paku yang memiliki pola distribusi berkelompok dan 2 jenis tumbuhan paku dengan pola distribusi acak (*Lepisorus longifolius* dan *Vittaria sp.*).

Di ketinggian I frekuensi relatif terbesar terdapat pada jenis *Davallia denticulata* sebesar 8,1967%, kerapatan relatif terbesar pada jenis *Christella dentata* sebesar 17,694% dan indeks nilai penting (INP) terbesar pada jenis *Christella dentata* sebesar 42,0454%. Di ketinggian II frekuensi relatif terbesar terdapat pada tiga jenis yaitu *Dicranopteris linearis*, *Selaginella plana* dan *Davallia denticulata* sebesar 8,4746%, kerapatan relatif terbesar pada jenis *Dicranopteris linearis* sebesar 21,872% dan indeks nilai penting (INP) terbesar pada jenis *Dicranopteris linearis* sebesar 52,4446%. Bukit Simarsayang Padangsidempuan memiliki suhu udara rata-rata 27-29 °C, kelembaban udara 69-74%, suhu tanah 20,1- 21,7 °C, pH tanah 6,34-6,35, kelembaban tanah 20,5 - 23,3, intensitas cahaya matahari sebesar 135,9 - 160,4 lux.

Kata kunci: Analisis vegetasi, Tumbuhan paku, Bukit Simarsayang.

VEGETATION ANALYSIS OF FERNS BASED ON HEIGHT IN SIMARSAYANG HILL PADANGSIDIMPUAN

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ABSTRACT

Vegetation analysis research aims to determine the diversity, dominance, patterns of distribution, physico-chemical factors of ferns growing medium in the Simarsayang Hill Padangsidimpuan. This research was conducted from December 2013 to January 2014. The method used is descriptive method with purposive sampling technique based on the environmental setting. The method used was purposive sampling using sample plots measuring 5 x 5 m, each height had 10 plots at first (385-443 m asl) and at second height (443-500 m asl) .

The results showed that in the Simarsayang Hill found 42 types of ferns are classified into 13 families with a total of 2228 individuals. First height had a diversity index 2,706 and second height had a diversity index 2,470 that means diversity index of each height have medium species diversity. First height dominated by *Christella dentata* as many as 175 individuals and at second height dominated by *Dicranopteris linearis* as many as 271 individuals. There are 40 types of ferns that have clustered distribution patterns and 2 different types of ferns with a random distribution pattern (*Lepisorus longifolius* and *Vittaria sp.*).

At first height found the largest relative frequency is *Davallia denticulata* amounted to 8,1967 %, the largest relative density is *Christella dentata* amounted to 17,694 % and the largest important value index is *Christella dentata* amounted to 42,0454 %. At the second height found the largest relative frequencies are on the three types *Dicranopteris linearis*, *Selaginella plana* and *Davallia denticulata* amounted to 8,4746 %, the largest relative density is *Dicranopteris linearis* amounted to 21,872 % and the largest important value index is *Dicranopteris linearis* amounted to 52,4446 %. Simarsayang Hill Padangsidimpuan has an average air temperature of 27-29 °C , 69-74 % humidity , soil temperature 20,1- 21,7 °C, soil pH 6,34 – 6,35 , soil moisture 20,5 -23,3%, the light intensity 135,9 -160,4 lux .

Keywords: Vegetation analysis, Ferns, Simarsayang Hill.